

What is claimed is:

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a1
1. An impedance matching circuit for tuning an active device, comprising:
a transmission line for electrically coupling a radio frequency signal between a
source and a load, one of the source and load comprising the active device, wherein the
length of the transmission line is adjusted to achieve a selected performance characteristic of
the device.
 2. The matching circuit of claim 1, wherein the performance characteristic is input
return loss.
 3. The matching circuit of claim 1, wherein the performance characteristic is output
return loss.
 4. The matching circuit of claim 1, wherein the performance characteristic is gain.
 5. The matching circuit of claim 1, wherein the length of the transmission line is
adjusted by laser trimming the transmission line.
 6. The matching circuit of claim 1, wherein the active device is a field effect transistor.
 7. A method of tuning an active radio frequency (RF) device, the method employing
tuning an impedance matching circuit coupled to the device, the matching circuit including
an adjustable length transmission line, the method comprising:
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conceded

measuring a performance characteristic of the device; and
adjusting the length of the transmission line to adjust the performance characteristic.

8. The method of claim 7, wherein the performance characteristic is input return loss.

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9. The method of claim 7, wherein the performance characteristic is output return loss.

10. The method of claim 7, wherein the performance characteristic is gain.

11. The method of claim 7, wherein the length of the transmission line is adjusted by
laser trimming the transmission line.

12. The method of claim 7, wherein the active device is a field effect transistor.

13. A method of manufacturing a power amplifier, comprising:
coupling an active device to a matching circuit, the matching circuit comprising a
transmission line having an adjustable length;
measuring a performance characteristic of the device; and
adjusting the length of the transmission line to achieve a change in the measured
performance characteristic.

14. The method of claim 13, wherein the device is a field effect transistor.

15. The method of claim 13, wherein the length of the transmission line is adjusted by laser trimming the transmission line.
16. The method of claim 13, wherein the performance characteristic is input return loss.
17. The method of claim 13, wherein the performance characteristic is output return loss.
18. The method of claim 13, wherein the performance characteristic is gain.